

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ROGER JOSEPH GOULET, PETER MICHAEL RAMSDEN, JERAULD  
LEE DICKERSON and SUSAN RAMILO WILLIAMS

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Appeal No. 1999-2423  
Application 08/825,204

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ON BRIEF

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Before GARRIS, OWENS and LIEBERMAN, *Administrative Patent  
Judges*.

OWENS, *Administrative Patent Judge*.

*DECISION ON APPEAL*

This is an appeal from the examiner's final rejection of claims 15-17. Claims 18-21, which are all of the other claims remaining in the application, stand objected to as being dependent from a rejected claim but allowable if rewritten in independent form.

*THE INVENTION*

The appellants' claimed invention is directed toward a process for reclaiming carpet components in which a combination of shear forces under turbulent conditions and a chemical softening agent for the carpet's binder are used to promote detachment of the binder from at least one of the carpet's pile and backing. Claim 15 is illustrative:

15. A process for reclaiming carpet components, said carpet including a backing and carpet pile disposed within said backing and secured to said backing with a binder, said process comprising:

(a) reducing the size of said carpet to form a reduced carpet material including pile material, backing material and binder material attached to at least one of said pile material and backing material;

(b) combining at least a portion of the reduced carpet material with a composition including a chemical softening agent for the binder to form a mixture; and

(c) applying to the mixture shear forces under turbulent conditions in an amount sufficient to promote detachment of the binder from at least one of said pile material and said backing material.

*THE REFERENCES*

|                            |           |          |
|----------------------------|-----------|----------|
| Hagguist et al. (Hagguist) | 5,230,473 | Jul. 27, |
| 1993                       |           |          |

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Sharer 5,518,188 May 21,  
1996  
(effective filing date Jun. 30,  
1994)

## THE REJECTIONS

Claims 15-17 stand rejected under 35 U.S.C. § 103 as being unpatentable over Sharer in view of Hagguist.

*OPINION*

We reverse the aforementioned rejection.

Sharer discloses a purely mechanical process for separating carpet fiber material from backing material (abstract). For a disclosure of the appellants' recited chemical softening agent for the binder, the examiner relies upon Hagguist (answer, page 4). Hagguist plasticizes a latex binder and debonds it from carpet pile and backing by subjecting the carpet to fluids, i.e., air, water, steam and chemicals, under variable temperature, pressure, and direction controls (col. 1, lines 45-50 and 56-63; col. 4, lines 1-5). One type of chemical, Hagguist teaches, is a surfactant (col. 4, lines 13-14). Hagguist teaches (claims 9 and 14) that the

fluids are selected from air, water, heated air, steam and chemical solutions, which indicates that the fluids need not be all used together and that, therefore, no particular one of these fluids is essential for obtaining the desired debonding.

The appellants define their chemical softening agent as "any agent capable under specified conditions of softening or swelling a material, for example, a binder material, via chemical reaction or interaction therewith, for example via interruption of the molecular forces in a polymeric matrix resulting in an opening of its structure" (specification, page 4, lines 23-27).

The examiner has not established that a surfactant, which the appellants preferably use in combination with their chemical softening agent (specification, page 5, line 25 - page 6, line 4), is a chemical softening agent within the appellants' definition of that term, or that one of ordinary skill in the art would have considered Hagguist's term "chemical" to encompass materials which fall within the scope of the appellants' definition of "chemical softening agent".

The examiner argues that Hagguist's teaching that "[t]he choice and combination of fluid, pressure, temperature and direction will depend upon the nature of the latex/filler binder system (e.g., standard carpet with primary and secondary backing [FIG. 16A], with foam secondary backing [FIG. 16B], and with heavy rubber secondary backing [FIG. 16C], and the combination best suited for the particular binder system being loosened and debonded" (col. 4, lines 5-13), indicates that Hagguist's chemicals are not limited to surfactants because there would be less need for a choice of fluid if the fluid can only be a surfactant (answer, page 5). The examiner has not established that Hagguist's choice of fluid would not have been considered by one of ordinary skill in the art to include choice of surfactant. Regardless, even if Hagguist's disclosure, including the disclosure that surfactants are "one type of chemical" (col. 4, line 14), would have indicated to one of ordinary skill in the art that the chemical can be other than a surfactant, the examiner has not established that Hagguist's chemicals encompass materials which fall within the scope of the appellants' definition of "chemical softening agent" or that Hagguist would have fairly

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suggested to one of ordinary skill in the art such materials rather than, for example, merely suggesting materials which, like the other disclosed fluids, apparently function by providing only a thermal and/or fluid shear effect.

Accordingly, we conclude that the examiner has not carried the burden of establishing a *prima facie* case of obviousness of the appellants' claimed invention.

*DECISION*

The rejection of claims 15-17 under 35 U.S.C. § 103 over Sharer in view of Hagguist is reversed.

*REVERSED*

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|                             | ) |                 |
| BRADLEY R. GARRIS           | ) |                 |
| Administrative Patent Judge | ) |                 |
|                             | ) |                 |
|                             | ) |                 |
|                             | ) | BOARD OF PATENT |
| TERRY J. OWENS              | ) |                 |
| Administrative Patent Judge | ) | APPEALS AND     |

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| PAUL LIEBERMAN              | ) |               |
| Administrative Patent Judge | ) |               |

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